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Cabbage, Cars and Beer? An examination of Dual Attitudes towards the Concept “German”

ORIGINAL PAPER

A controversial and still ongoing debate concerns the question whether observed weak correlations between implicit and explicit attitudes point to two different underlying constructs of attitudes or emerge due to assessing the same construct in different ways. Next to addressing the problem of the low explanatory power of correlational conclusions, the present study aimed to contribute behavioral evidence to this debate with an additional focus to the underrepresented single target categories in implicit social cognition, such as nationality concepts. The results of the assessment of attitudes towards the concept “German” point to the conclusion that in general, attitudes towards the concept are mostly negative. Implications from these results are used to develop strategies regarding the facilitation of academic student mobility.

Keywords: attitudinal dissociation, nationality concepts, academic student mobility

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“Attitude is a little thing that makes a big difference.” —Winston Churchill

INTRODUCTION

Although Churchill was most likely referring to a rather colloquial use of the word attitude he holds some point. Our attitudes, defined as “a summary evaluation of

an object of thought” (Bohner & Wänke, 2002, p. 5) have been a controversial topic since the early years of social psychology. A very wide range of particular behaviors and beliefs can be compiled under the label of one specific attitude (Oskamp & Schultz, 2005) causing persisting confusion what to put under the label of “attitude”.

Nevertheless, attitudes are clearly influential. We socialize easier with people that hold comparable attitudes towards topics we are concerned with, and withdraw from people and/or situations that are not matching our own beliefs (Bohner & Wänke, 2002). The main reason for studying attitudes is therefore certainly the assumption that attitudes influence a person’s behavior and can be used to explain and predict behavior. However, this might only be correct at first glance. Real life shows us that we often act contrary to our attitudinal beliefs (Bohner & Wänke, 2002). For instance, there is only surprisingly little evidence for a strong relation between students’ attitude towards cheating on exams and their actual behavior of cheating (Wicker, 1969). Thus, it is rather the question in *how far* our behavior is influenced by attitudes and whether the attitude shapes behavior or vice versa. Probably, behavior and attitudes should be even considered as being reciprocally active (Oskamp & Schultz, 2005).

A brief history of attitude research and its problems

In the past, social psychological research was primarily focused on the nature of explicit attitudes and their predictive power for behavior (e.g., Fishbein & Ajzen, 1977, 2005). These studies explored when and under which circumstances explicit attitudes could be used for anticipating behavior. Much to the dismay of the researchers it was found that a single, isolated attitude will most likely not predict distinct behaviors. Instead, attitudes give us some indication of an average behavioral tendency. Hence, attitudes *can* contribute to explanatory and predictive features of behavior, but certain frame conditions (e.g., minimization of other influences to the behavior, potency of attitude et cetera) have to be met. In addition, another disadvantage of explicit attitude measurement became prevalent: the vulnerability of explicit attitude measurement to socially desirable answering tendencies (e.g., Hofmann, Gschwendner, Castelli, & Schmitt, 2008). Due to the fact that explicit attitudes are assessed with self-reports in most cases, people are prone to adjust their reports towards socially more accepted positions (Greenwald, McGhee, & Schwartz, 1998).

Consequently it is the concept of implicit attitudes and its measurement, as well as its relation to explicit attitudes that engages social psychological research over the past 15 years (e.g., Greenwald & Banaji, 1995; Wilson, Schooler & Lindsey, 2000; Hofmann et al., 2008).

Implicit attitudes – a solution causes problems

Implicit attitudes are by definition positive or negative emotions, thoughts, or behaviors towards social objects which are affected by past experience. This past experience, however, remains either completely inaccessible to the person or is only imprecisely recalled (Greenwald & Banaji, 1995). Therefore, implicit attitudes are much less susceptible in their measurement to trigger biases such as social desirable

answering tendencies (Greenwald et al., 1998). Accordingly, new measurement techniques of implicit attitudes have been developed (for a summary see e.g., Fazio & Olson, 2003) to circumvent the problem of measuring attitudes explicitly, and an enormous amount of research employing implicit measurement techniques has been conducted (Hofmann et al., 2008).

However, the concept of implicit attitude is still called into question with emphasis on its general existence, nature and measurement. This is due to the fact that behavioral research sometimes uncovers astonishing results with regard to people's implicit and explicit attitudes. It seems to be the case that especially the evaluation of social controversial topics, such as racial prejudice or sexual orientation, elicits a phenomenon that Greenwald and Banaji (1995) referred to as a "dissociation of attitudes". This dissociation is reflected in the weak correlations between implicit and explicit measures that are observed. People seem to have two different attitudes towards the same topic (e.g., Monteith, Voils, & Ashburn-Nardo, 2001; Dovidio, Kawakami, & Gaertner, 2002). For instance, some people who claim to have an open and agreeable attitude towards homosexuality show response patterns on implicit attitude testing that are strongly indicative of a negative attitude towards same-sex orientation (e.g., Jellison, McConnel, & Gabriel, 2004; Steffens, 2005). The precise reasons for this surprising phenomenon are still unclear.

Theories on attitudinal dissociation

Since the initial proposition by Greenwald and Banaji (1995) that there is a whole category of attitudes which is inaccessible by self-reports and the like, because of its unconscious mode of processing, numerous theories about the conceptual nature of the implicit/explicit attitude relationship were constructed (Nosek & Smyth, 2007). Most of the theories about the nature of implicit attitudes thereby focus on approaches to *explain* the differences between implicit and explicit attitudes in behavioral data. The major interpretations that contributed to the debate of the suspected two types of attitudes can be summarized into three broad categories (Greenwald & Nosek, 2009): (a) *single-representation interpretations* - This type of interpretation addresses the phenomenon of attitudinal dissociation as an illusion. The difference between the outcomes of explicit and implicit measures of the same attitude object is caused by assessing this attitude representation with different measurement techniques (e.g., Fazio & Olson, 2003); (b) *dual-representation interpretations* - This viewpoint assumes that attitudinal dissociation arises from the separated, conceptual structure of the underlying attitudes tapped. More specifically, explicit attitudes result from a conscious and deliberate process, whereas implicit attitudes arise from an automatic and probably unconscious mode (Wilson et al., 2000; Strack & Deutsch, 2004); (c) *Person vs. culture interpretations* - The last major type of interpretation assumes that the attitudinal dissociation originates in two different kinds of influences a person is exposed to throughout life: The culture in which one is living, and the personal development. Thereby, cultural frameworks of semantic knowledge affect implicit measures. In turn, explicit measures delineate personal influences (e.g., Karpinski & Hilton, 2001).

Whereas the third approach received relatively little attention in psychological

research, the first two approaches caused a persistent and still ongoing debate. Fazio and Olson (2003) who support the first approach, suggest the use of the so called “motivation and opportunity as determinants”- model (MODE Model) for the attitudinal dissociation phenomenon. In this model, the attitude-to-behavior process is never completely unconscious, nor entirely intentional. Instead, it is a mixed process featuring both components (Fazio & Ohlson, 2003). That is to say, different measurement techniques of implicit and explicit attitude explain the observed distinction between the two types of attitude, because the techniques measure different stages of processing of a single attitude object rather than tapping two distinct representations. In contrast, Wilson et al. (2000) developed a dual model of attitudes theorizing the finding that implicit attitudes seemed to be conceptually different from explicit attitudes in terms of attitudinal dissociation (Greenwald & Banaji, 1995). In this model, implicit and explicit attitudes are understood as independent, coexisting evaluations of an attitude object. People can have two attitudes towards the same object at the same time: implicit attitudes (usually processed unconsciously) and explicit attitudes (which are part of the consciously aware mindset). This viewpoint is supported by evidence from several studies as well as by other theoretical models. For instance, Strack and Deutsch (2004) proposed a two-system model that expands the dual attitude model of Wilson et al. (2000). They propose that the phenomenon of attitudinal dissociation can be explained in terms of tapping distinct evaluative sources. Thereby, explicit attitudes are attributed to a reflection of people’s opinions and are therefore the consequence of a relatively deliberate process of thought. Implicit attitudes, in turn, are thought to be activations of people’s associative structures, a rather unconscious mode of thought that is characterized by fast and non-normative processing. Additionally, evidence for the assumption that implicit and explicit attitudes are indeed two independent constructs can be obtained from a wide variety of research. Gawronski and Strack (2004), for example, showed that an induced cognitive dissonance affects explicit racial prejudice, but implicit prejudice remains unaffected. Similar patterns are found in other studies concerning social controversial topics, stating that implicit and explicit measures of racial attitudes as well as ethnocentrism are related but distinct factors (Cunningham, Preacher, & Banaji, 2001; Cunningham, Nezlek, & Banaji, 2004 as cited in Nosek & Smyth, 2007). Finally, probably the most important evidence with regard to the dual representation approach stems from a large-scale re-evaluation of implicit construct validity by Nosek and Smyth (2007). Following this re-evaluation, the constructs of implicit and explicit attitudes are in fact related, but the deeper analysis of data suggests two distinct underlying constructs of attitude. Thus all evidence stated above might be interpreted as indicative for a dual representational viewpoint of attitudes. However, the variability if and in how far implicit and explicit attitudes are connected cannot be fully explained by now. It is obvious that there is still a need for additional research to understand the nature of the relationship between implicit and explicit attitudes.

It becomes also more and more evident that the phenomenon of attitudinal dissociation could be at least partially attributed to certain methodological issues in the assessment of implicit attitudes. Most of the studies mentioned above made use of the Implicit Association Test (IAT) as a measurement of implicit attitudes

(e.g., Greenwald et al., 1998; Monteith et al., 2001; Cunningham et al., 2001). The IAT however has one major disadvantage which could attenuate the evidence used to examine possible conclusions. Due to its need of a contrasting category, it is only the relative strength of associations between target category and contrasting category that can be assessed (Greenwald et al., 1998). Next to the rather disconcerting idea that a methodological issue could be held responsible for a phenomenon which causes controversy in an entire field of psychology, some concepts in social psychology simply remain unexamined due to this fact. Considering that not all concepts of social implicit cognition have a contrasting category (like in a racial IAT with black and white skin color as target categories or with Pepsi and Coke), it is particularly problematic to examine such target concepts in general (Nosek & Banaji, 2001).

Single target evaluation – Just black and white are not enough

An example for such a concept without a contrasting counter category would be the concept of “nationality”. This concept is usually defined as the belonging to a nation, most of the time influenced by the individual’s citizenship, but in some cases also by ethnicity or place of residence or the individual’s sense of national identity (“nationality,” Oxford Dictionary, 2000). Given its nature of being a rather fuzzy concept instead of a clear cut category, it is obvious that it cannot be evaluated with regard to counter categories. Consider for instance, the concept “German”. Some more or less loose associations like “Oktoberfest”, German cars, beer or the unavoidable Nazi Germany might come up (Bolten, 2006). Moreover, most people will have some kind of attitude towards the concept “German” as well. However, only little attention has been paid on attitudes towards nationality concepts due to the afore-mentioned problematic evaluation. Any the less, nationality concepts are very interesting to examine. Given the assumption that attitudes guide our behavior and taking into account that people can have two attitudes towards the same concept, the examination of people’s attitudes towards a specific nationality could hold benefits for various fields (e.g., politics, academic internationalization). It would enable us to be much more responsive and probably even more persuasive if needed. Imagine, of course totally cliché-ridden, an Italian being early, or a funny German. By confronting people with insight to their attitudes or even acting out the opposite of what they had expected according to priory built up attitudes, one is able to reach levels of intercommunication far beyond the usual. Especially in the case of students’ academic mobility (spending a part of or completing a whole study abroad), the knowledge gathered from examining attitudes towards a specific nation could improve the process of academic internationalization in the long-term.

Since the treaties of Maastricht in 1992, the facilitation of students’ mobility and the teaching of international students is an official part of the European educational policy (West & Barham, 2009). However, albeit a lot of quantitative research is done on student mobility, only few indications exist about levels of satisfaction regarding the time spent abroad. Evidence from the rare qualitative research in this field supports the conclusion that an experience abroad often does not live up to student’s expectations (Olivas & Li, 2006). Among other reasons, this discrepancy between the goals of exchange programs like Erasmus and reality goes

back to extensive problems with cultural differences and to some extent how the students from abroad are welcomed. This provides a clear link to attitudes, since we know that they can guide our behavior. Especially in the case of German students who tend to have a significantly higher academic mobility than students from other comparable countries (Isserstedt & Schnitzer, 2005) it is in particular interesting to examine the single target “nationality” among host countries.

The present study therefore explored the distribution of dual attitudes among three different nationalities with a special emphasis on the employment of a single-target category. The construction of the hypotheses is based on literature in this field. Important insights of past attitude research which warrant the present study can be summarized as follows: a) The conceptual composition of attitudinal dissociation remains unclear. Further research employing paradigms that address the methodological weakness of measuring especially implicit attitudes only in comparison with contrasting categories is needed; b) A scientific interest in concepts of social cognition that are hard to examine (e.g., nationality concepts) is justified, given the lack of qualitative research (e.g., in the field of student mobility).

This study aimed to contribute behavioral evidence to the debate of attitudinal dissociation. Among others, a possible solution to this issue is provided by the Go/No Go Association Task (GNAT) (Nosek & Banaji, 2001). The paradigm alleviates the aforementioned weakness of the IAT by the option to implement a single target category without a contrasting category. It has been shown to provide equally reliable outcomes regarding the measurement of implicit attitudes (Nosek & Banaji, 2001). Moreover, with the employment of the GNAT with a single target category, the present study addressed the gap of qualitative research in the course of student mobility by means of assessing attitudes towards a specific nationality. The concept “German” was examined in an Inter-European context of growing host countries for German students going abroad: the Netherlands and Poland (Isserstedt & Schnitzer, 2005). By assessing the implicit and explicit attitudes of Polish, Dutch, and German students, indications for a confirmation or confutation of the dual-representation interpretation could be gathered. Moreover, valuable information about the attitudes towards the concept “German” among Polish and Dutch students was obtained. It was expected that (1) the observed tendencies in implicit and explicit attitudes towards the target-concept “German” differ in their valence. (2) An observable difference between the averages of implicit and explicit attitude assessment among the three sample groups exists.

METHOD

The present study used a between-subjects design with as independent factor ‘nationality’ (Dutch, Polish, German), and two separate dependent measurements of the implicit and explicit attitudes respectively towards the concept “German”. 61 participants from Poland, the Netherlands, and Germany completed the study. However, four cases from the Polish sample had to be excluded due to invalid trials caused by apparent language comprehension difficulties. Therefore, behavioral

data of 57 participants (mean age 22. 7; 38 female, 19 male) was further analyzed. The age and gender distribution of the individual samples appears as the following: the Netherlands: 18 participants, mean age 23, 11 (11 female, 7 male), Poland: 19 participants, mean age 22, 47 (9 female, 10 male), and Germany: 20 participants, mean age 22, 45 (18 female, 2 male).

Implicit attitudes were explored by means of averaged response latencies on a computer based Go/No-Go Association Task (GNAT; Nosek & Banaji, 2001). The GNAT assesses the strength of mental association between a target concept and two evaluative concepts by measuring the latency of responses towards pairings of stimuli. That is to say, the participant is asked to respond to a certain type of pairing per condition (e.g., when the stimuli displayed is either German or good) while not responding to other pairings (e.g., German and bad). It is assumed that faster responses are directly linked to stronger mental associations.

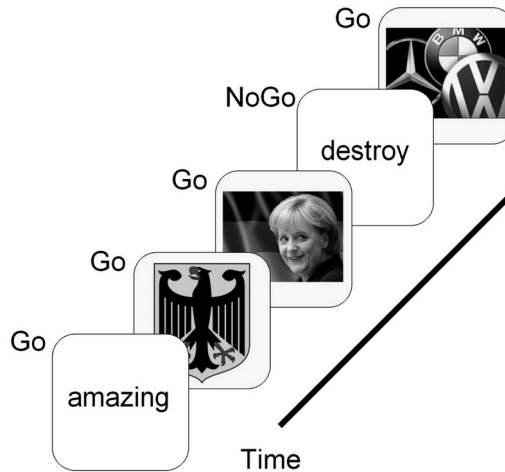


Figure 1 - The Go/No-Go Association Task. Participants are provided with stimuli representing the target- category German or a word (positively or negatively valenced). Depending on the condition assigned (here German and good), the participant is asked to press the space bar if the stimuli displayed is either German or good while not responding to negatively valenced words or generic distracter items.

Explicit attitudes were examined with the aid of averaged corrected responses on a Feeling Thermometer, which can be considered as a standardized tool in attitude research (Wilcox, Sigelman, & Cook, 1989). Participants were asked to indicate the “warmness” of their feelings towards the concept “German”. Thereby, the scale of temperature indication ranged from 0° (“very cold”) to 100° (“very warm”) whereas 50° indicated no feeling at all towards the social object in question (e.g., Oskamp & Schultz 2005).

The study was approved by the ethical committee of the Faculty of Psychology and Neuroscience of Maastricht University and abides by the ethical guidelines for psychological research handled by the Faculty of Psychology, Warsaw University.

Procedure

After a brief oral introduction about the study, the participants had the possibility to ask questions and were informed about their right to stop at any time. In the following, the participants were asked to carefully read through the written instructions of the GNAT on a computer screen. After a practice trial, the participants were left alone to complete four experimental trials within two conditions: congruent trials reflecting the expected attitude towards the concept “German” (pairing of German + bad) and incongruent trials (pairing of German + good). Every trial consisted of 100 randomly presented stimuli on which the participant had to respond by responding to the congruent pairings (Go – responses) while withholding their responses to incongruent pairings (No-Go – responses). In this case each stimuli display automatically ended after 1500ms. Between each trial a short break was provided. At the end of trial four, a written instruction was displayed, signalling that this part of the experiment was finished. The participants were instructed to fill in a demographic survey and to complete the Feeling Thermometer reporting the warmth of feeling toward the concept “German” and their own nationality. Finally, the participants were debriefed and dismissed. If entitled and demanded, the participants were rewarded with 0.5 course credit. The approximate duration of the whole experiment was about 30 minutes.

Statistical Analysis

The behavioral data obtained from the measures of implicit (GNAT) and explicit (Feeling Thermometer) attitude towards the concept “German” was prepared for further statistical analysis. In the case of the GNAT, the obtained response latencies were recomputed by means of trial validity and normality of response. Only valid responses (i.e., correct Go- responses to target items), not exceeding the mean ± 2 *standard deviations* were taken into account. Subsequently, the four experimental trials were recomputed into two independent levels of implicit evaluation (congruent (German + bad), incongruent (German + good)). For the explicit attitudes, the measurements of feeling of warmth towards the concept “German” and “Own nation” were merged into two separate indices of explicit attitude.

A GLM repeated measures was applied to the behavioral data obtained from the GNAT with “nationality” serving as independent between-subject factor and the two levels of implicit evaluation as independent within-subject factors. The averaged response latencies in the congruent and incongruent condition were taken as dependent within-subjects factors. For the analysis of the assessed data from the Feeling Thermometer, again a GLM repeated measures was applied. “Nationality” served as independent between-subject factor whereas the dependent within-subject factors were the averaged reported feelings of warmth towards the concept “German” and the averaged reported warmth of feelings towards the participants’ own nation. An *alpha* level of 0.05 was used for all inferential analyses. In the case of significant main effects, post-hoc comparisons with Bonferroni correction were applied.

RESULTS

A significant interaction effect of nationality ($F(2, 1) = 5, 62, p = .004$) on the evaluation towards the concept “German” as well as a significant main effect of nationality ($F(2, 1) = 76, 91, p < .000$) was found. In contrast, no significant effect of nationality was found on the explicit attitudes scale (Figure 2). Interestingly, all participants, reacted significantly ($p < .000$) faster in the congruent (German + bad) condition than in the incongruent (German + good) condition. However, among groups, clear differences were observable with the Polish sample reacting the fastest to the congruent target categories ($M = 599\text{ms}$), followed by the German sample ($M = 653\text{ms}$), and the Dutch sample reacting the slowest ($M = 675\text{ms}$). Thus, the response pattern indicates that a negative automatic attitude towards Germans is clearly influenced by the origin of the participant. This seems to especially account for the case of the Polish sample, since the mean difference between the Polish and the Dutch as well as the German sample was more significant than the differences between the Dutch and the German sample (Dutch/German: $p = .038$; Polish/Dutch/German: $p < .000$) as analyzed in the post-hoc comparisons.

An observable difference between the averages of implicit and explicit attitude assessment among the three nationalities was found for implicit, but not for explicit attitudes ($F(2, 1) = 2, 11, p = .131$). However, an obvious trend is visible (Figure 2). As it could have been expected in advance, Germans reported the highest temperatures towards themselves. The least warm feelings, however, were reported by the Dutch sample which was in fact the slowest on the automatic evaluation of the negatively valenced target category. Moreover, a significant main effect of “feeling” could be observed ($F(2, 1) = 8, 07, p = .006$). That is to say, the temperature rating of the Polish and Dutch sample regarding their own nation turned out to be significantly warmer than the temperature rating of the German sample.

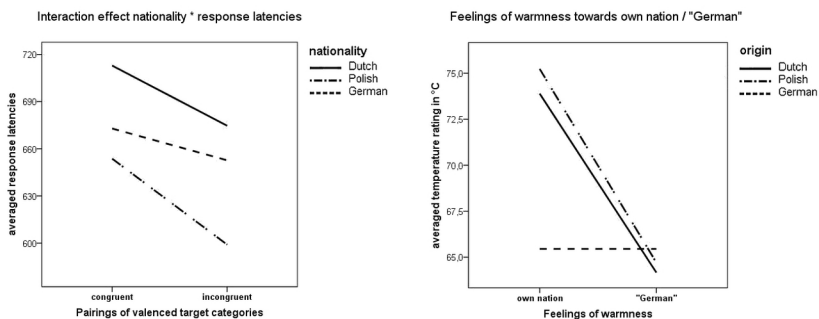


Figure 2 - Interaction effect between nationality and averaged response latency on two independent within-subject factors. 1 = incongruent, 2 = congruent (left); Mean Plots depicting averaged temperature ratings for “own nation” = 1 and “German” = 2 among the three groups compared (right).

DISCUSSION

The purpose of the present study was to examine implicit and explicit attitudes towards the concept “German” exemplarily for single target evaluations in implicit social cognition. Moreover, the study was set up in a way that it attempted to provide possible solutions to methodological issues that have been identified in earlier studies. The study aimed to broaden the explanatory power of attitude research.

It was expected that the tendencies observed in the assessment of implicit and explicit attitudes towards the concept “German” differ in their valence among three groups with different nationality. Overall, this expectation was confirmed by means of a significant main effect of nationality on response latencies in the assessment of implicit attitude. All participants reacted significantly faster on the congruent pairings (German + bad), being indicative for a negative implicit evaluation of the target concept. However, among groups, significant differences in response latencies were visible. This suggests a broader distribution of implicit attitudes within the overall negative evaluation. The Polish sample group displayed a more negative implicit evaluation of the concept “German” than the German sample. The Dutch sample showed the least negative but still negative implicit evaluation.

In contrast, no significant effect of nationality was found on the explicit attitudes scale, the averaged warmth of feeling towards the concept “German”. All groups unanimously stated a certain, not significantly differing, feeling of warmth towards the concept “German” which is indicative for a neutral to slightly warm explicit attitude (means are grouped around 65°C). Thus, the clear difference that could be observed between the implicit and explicit attitude confirm the expectation of differently valenced attitudes among the three groups.

Moreover, it was expected that an observable difference between the averages of implicit and explicit attitude assessment among the three nationalities exists. The current study fails to provide such results for explicit, but not for implicit attitudes towards the concept “German”. Even though an obvious trend of different warmth towards their own nation and the concept “German” is visible (Figure 2), the outcomes are not differing significantly.

However, even though partially failing to provide support for the second expectation, this outcome is interesting, since a non-significant outcome at this point does strictly speaking provide additional support for the first expectation. That is to say, if all groups evaluate the target concept “German” approximately the same on one scale, but not at all on the other, it is safe to assume that their valence differs to great extent.

Taken together, a distinction of underlying attitude constructs fits the data better than explanations that point to one single construct that has only been assessed with different methods. Thus, a strong indicator for a dual viewpoint of underlying attitude constructs as suggested by a dual model of attitudes (e.g. Wilson et al., 2000; Strack & Deutsch, 2004). However, this might only be true on first glance. Before drawing a definite conclusion with regard to the data obtained, a critical review of additional implications has to be made. Indeed, the response patterns fit a dual attitude model better than a unimodal model. Nevertheless, no evidence was gathered that it is not a unimodal model. Just by gathering indications

for a dual representation model of attitudes, it is by implication impossible to rule out a single-representational model. In line with the elegant re-evaluation of numerous studies within the field of attitudes by Nosek and Smyth (2007) who claimed that irrespective their source implicit and explicit attitudes have essentially independent features and none of the two possible explanations in question does fully account for the abundant depiction of the findings, the present study can only contribute another indication, not a valid proof for a dual model. However, all studies re-evaluated by Nosek and Smyth (2007) suffered from the numerous methodological issues that have been discussed before. Therefore, the observed tendencies in the present study might be considered as having a bigger explanatory impact than previous studies since it particularly addressed multiple of those issues at the same time.

Even though this study aimed to rule out certain methodological errors, one still has to take additional indications into consideration. Greenwald and Nosek (2009), for instance, ascertained that no empirical evidence at all can be used to explain the phenomenon of attitudinal dissociation in terms of underlying structural disparity. Due to the fact that attitudes are still a subject to theoretical approaches, they remain “hypothetical and unobservable” (Greenwald & Nosek, 2009, p.9) and can therefore not be addressed with the aid of behavioral research. However, empirical evidence is still used to examine attitudes on a regular basis. This dissension about the usefulness of behavioral evidence in attitude research fuels the controversy about the attitudinal dissociation phenomenon only further. Therefore, it is pivotal to use Nosek and Smyth’s (2007) theoretical, but at least fully accountable explanation of this phenomenon together with behavioral data, the H₂O example: Attitudes might be like the observably different forms of water, like ice, snow, and steam, but deriving from a single molecular structure. The different forms of attitudes might be triggered, just as in water, by situational factors as temperature. However, even though the underlying molecular structure (or the underlying attitudinal concept) might be the same, no one would ever try to swim in a snowdrift. The same goes for attitudes. They might or might not derive from the same structure, we do not know that. However, in real life, it is much more suitable to study them as structurally different. Taking this implication into account, it could be even the case that every observed tendency in favor of a dual viewpoint is a misconception. However, as mentioned before, a unimodal theoretical model can by implication not rule out a dual viewpoint. Therefore, even though providing us with a satisfactory explanation, the ongoing controversy will not be solved by this statement.

Next to the rather theoretical accounts that could weaken the conclusions drawn from the present study, this research faces several practical limitations. First of all, even though the stimuli used in the Go/No-Go Association Task (GNAT), were carefully reviewed, a general lack of sufficient comprehension of English was observed in the Polish sample. Obvious cases of misinterpreting text stimuli were excluded. However, it could still be the case that the level of comprehension influenced the responses. In future research, this issue should be accounted by assessing in the native language of participants only.

Second, the GNAT paradigm suffers from the methodological problem that

it accounts for measuring single attitude objects, but there is no possibility of proving that the attitude object was evaluated independently from other factors. Therefore, it could be the case that the results are biased in terms of e.g., contextual factors. This limitation is in line with the review of Blair (2002) who claims that “automatic attitudes - like self-reported attitudes - are sensitive to personal, social, and situational pressures (...)” and “do not provide a ready solution to the problem of attitude malleability” (p. 256).

Third, some additional methodological issues that should be taken into consideration in future research are connected to the paradigms chosen. The GNAT only accounts for stimulus categorizations. Different facets of an attitude object were shown and had to be categorized into the target category. In turn, the assessment of explicit attitudes with the Feeling Thermometer is a category label evaluation. This could account for the observed tendency contrarities of those two measurements equally good as really different underlying attitude constructs. Furthermore, as mentioned above, the Feeling Thermometer is a solely category label evaluation that depicts direction and intensity on a continuous scale. By doing so, individual differences producing variance have to be taken into account. According to Wilcox, Sigelman, & Cook (1989), some people tend to display overall “warmer” reports than others and some tend to use broader partitions of the scale. Next to that, a certain amount of unexplained variance is always expected, which cannot be attributed to people’s tendencies but rather to random noise and other factors (e.g., contextual factors and/or biases). However, this limitation loses impact given that research has shown that the foremost predictor of the Feeling Thermometer is indeed the attachment to the concept questioned (Alwin, 1997). Eventually, the calculated power criterion was not met. The samples used are very small and only 57 participants could be included into the analysis. Given the strong significance of the results, however, this limitation can be considered as minor.

In spite of these limitations, the current study provides valuable information about the employment of a single-target category, here nationality. The controversy stated above might not be solved and given the prudential analysis provided by Greenwald and Nosek (2009) probably will not be resolved in the near future. However, despite this controversy, on one topic unity remains. Attitudes - also implicit - are under certain circumstances important explanative and predictive factors of people’s current and future behavior (Bohner & Wänke, 2002). This conjuncture allows adding further relevance: The findings of the present study can be used in the additional focus of this paper outlining practical implications for the process of internationalization on university level.

The Netherlands as well as Poland are growing host countries for German mobile students. Almost half of the students starting a Bachelors’ program at Maastricht University in 2010 were coming from abroad. Furthermore, there is indication for an ascertained success on recruiting German students within that population (Maastricht University, 2010). Similar patterns indicate a host country tendency for Poland. For instance, at the University of Warsaw, Germans represent the highest number of incoming student’s for short term studies (International Relations Office, n.d). Given these figures, it is futile to assume that deeply ingrained implicit negative evaluations towards the concept “German” appearing as strong

as shown in this study, would not be influential on studying together. Therefore, one should clearly consider the development of internationalization concepts that deepen the often shallow, image-conscious approaches handled by universities nowadays. These approaches, including the care for international students' needs in terms of housing, lowered language barriers, and organized get-togethers, self-evidently for international students only, usually even facilitate the ostracism of incoming international students. Naturally, this is not what universities sought to accomplish, however, a more sustainable approach of international student integration would be certainly more beneficial. Universities should work hand in hand with all students, local as well as international to establish concepts of internationalization that provide a real cross-cultural cooperation. Possible short-term objectives could for instance cover the enlargement of teambuilding activities and/or the extension of mentor programs, pairing up local and incoming students for longer periods of time than the common introduction week. Such provisions might enable students to override cultural barriers and even could lead to attitude changes that contribute substantially to an improvement of the experience abroad.

Whereas the practical application of the findings in this paper provides us with relatively easy to achieve short-term objectives that could actually make a difference, the theoretical implications remain limited. The controversy, on the origin of our implicit and explicit attitudes clearly demands further research. This study conducted in the naturalistic environment of academic student mobility has only begun to shed more light on the attitudinal dissociation phenomenon by providing some evidence in favor of a dual viewpoint. The additional, practical focus of the present study, concerning the process of internationalization, however, adds a perpendicular relevance in terms of potentials and pitfalls of academic internationalization allowing the fragmentary, but meaningful conclusion that much like students, regardless their precise origin, our attitudes towards other people are meaningful and influential.

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“Qui dedit beneficium, taceat. Narret, qui accepit.” —Seneca

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